The Journal

of the

AMERICAN LEATHER CHEMISTS ASSOCIATION

VOLUME LXIX

1974

Published Monthly By

THE AMERICAN LEATHER CHEMISTS

ASSOCIATION

EASTON PRINTING COMPANY, PRINTERS

EASTON, PA.

INDEX
TO
VOLUME LXIX, 1974

AUTHOR INDEX

(A) indicates abstract; (P) patent; (BR) book review; and (TN) technical note

ACETO, N. C. *See* KOMANOWSKY, M.

ACOSTA, A. A. *See* GRIGERA, J. R.

AFONSKAJA, N. S. *See* ZURABJAN, K. M.

ALEXA, G. *See* CHISALITA, D.

———. *See* NANESCU, V.

ALPS, H. A., and W. C. PRENTISS. Break Resistant Leather (P) 230

AMARAL, W. *See* GUTIERREZ, T.

AMEMIYA, K. *See* OOHARA, S.

ANDRESEN, O. *See* AUNSTRUP, K.

ARMSTRONG, T. D. A Review of the Legislation of the Ontario Ministry of the Environment (OME) As It Pertains to the Tanning Industry 144

ARTAMONOV, V. B., V. S. NABOKOV, A. I. METELKIN, and T. D. KOPALIESHVILI. Effect of Titanozirconian Tanning on Porosity and Properties of Chamois Leather (A) 380

ATKINSON, J. H., and F. SCOWCROFT. The New Economic Quick Mimosa Extract Tanning (A) 379

AUNSTRUP, K., O. ANDRESEN, and H. OUTTRUP. Proteolytic Enzymes, Their Production and Use (P) 128

AUSLANDER, D. Emulsion Preparation in an Ultrasonic Field, Emulsions for Leather Fatliquoring (A) 223

BABIN, G. Y., and A. D. ZAYONTCHKOVSKI. Effect of Fluffing Parameters on the Quality of Surface Treatment (A) 378

BABITCH, I. Y., N. I. KOLYESNIKOVA, A. J. METELKIN, and A. A. DENYSOVA. Properties of New Zircon-Chrome Tanning Agents for Bend Leather (A) 380

BABLOYAN, O. O. *See* SHISHKIN, Y. I.

BAILEY, A., and C. LAPIERE. Effect of an Additional Peptile Extension of the N-Terminus of Collagen from Dermatosparactic Calves on the Crosslinking of the Collagen Fibers (A) 274
BAILEY, A. *See* FOWLER, L.
BAILEY, D. The Effect of Legislation on the Future Use of Water in the Leather Industry (A) 318
———, M. K. LEAFE, K. S. ROBINSON, and S. COLLINS. The Role of High Rate Bio-Filters in the Leather Industry (A) 436
———. *See* HAPPICH, W. F.
BAJZIK, J. Perspective Development Aims of the Leather Industry in Slovakia and of Its Material and Technical Basis up to 1975 (A) 124
BALDANO, Z. K. *See* SHISHKIN, Y. I.
BALIF, G. The Effect of Antiseptics and Antibiotics on the Microflora of Raw Hides (A) 222
BALUTENKO, V. V. *See* ELEN, B. L.
BANGARUSWAMY, S. Production of Sueded, Double-Face Shearlings (A) 551
BARAMBOIM, N. K. *See* KIM, B. N.
BARAT, S. K. *See* SRINIVASAN, T. S.
BARD, J. B., and J. A. CHAPMAN. Diameters of Collagen Fibrils Grown *in vitro* (A) 382
BARLOW, J. R., and R. REED. Electron Microscope Studies of Leather-Polymer Systems (A) 381
BATTISTA, O. A. Method of Forming Structures from Microcrystalline Collagen (P) 553
BAUMANN, H. *See* PLAPPER, J.
BEACHEY, E. H. *See* KATZMAN, R. L.
BELL, M. A. Leather Clothing — Its Make-Up and Dry Cleaning (BR) .. 48
BENINATE, J. V. *See* DONALDSON, D. J.
BENSUSAN, H. Investigation of Crosslinks in Collagen Following an Enzymatic Hydrolysis (A) 273
———. *See* DIXIT, S.
BERG, R., and D. PROCKOP. The Thermal Transition of a Non-Hydroxylated Form of Collagen. Evidence for a Role for Hydroxyproline in Stabilizing the Triple-Helix of Collagen (A) 278
———. *See* OLSON, B. R.
BITCOVER, E. H., A. L. EVERETT, W. E. PALM, W. WINDUS, and J. NAGHSKI. Comparative Physical Properties of Leather from Young Bull Hides and Steerhides 508
BLAŽEJ, A., I. MICHLÍK, and A. GALATÍK. Theoretical Principles of Cleavage of Keratin Disulfide Bonds in Sulfide-Calcareous Lime Liquors (A) 46

———. *See* MICHLÍK, I.
———. *See* SMEJKAL, P.
BLUMENTHAL, W. B. Zirconium Tanning (P) 129
BÖHM, J. *See* LUDVÍK, J.
BOHME, T. Treating Animal Hairs or Protein Fibers (P) 233
BORNSTEIN, P. *See* VONDER MARK, K.
BOUTLE, D. L. *See* CUNNINGHAM, V. R.
BRATULESCU, V. *See* CRISTESCU, D.
BRIGGS, S. Water-Resistant and Water-Repellent Tanning (A) 47
BRUNS, R. ,and J. GROSS. Bond Pattern of the Segment-Long-Spacing Form of Collagen. Its Use in the Analysis of Primary Structure (A) 273
BUCHAROVA, N. P. *See* ZURABJAN, K. M.
BUFF, F., J. I. GROSS, and L. W. HEALY. Process of Preparing Leather Substitute from Polyurethane Foam Sheet (P) 561
BUKOVSKI-STRZVZEVSKA, M., M. KOSINSKI, M. DOBROVOLSKA, and J. SKOWERENDA. Roentgenographic Testing of Sodium Sulfate Crystallization in Collagen Films Obtained from Solution (A) 379
BULACOVSCHI, J. *See* CHIRITA, G.
BURNETT, R. S. *See* JOHNSON, V. L.
BUTLER, E. B., I. A. FAK, and L. L. LINE. Hydrophilic-Poromeric Foam (P) 558
BUZOV, B. A. *See* KIM, B. N.

CALA, J. A. *See* GREIF, M.
CANAT, C. Process for the Production of a Leather Substitute (P) 556
CARLSON, R. C. Process for Producing an Impregnated Waterlaid Sheet and Resultant Product (P) 126
CASNOCHA, J. A. Coloring of Side Leather (TN) 89
CASSELLA, V. J., JR. Method of Preparing Dry-Cleanable Soil-Resistant Leathers (P) 559
CERVENY, V. *See* HORÁK, J.
CHAPMAN, J. A. *See* BARD, J. B.
CHIFFERT, M. Theoretical and Practical Studies on Dyeing and Retanning of Chrome Leather Previously Dried in Such a Way as to Obtain a Marbled Design Effect (TN) 308
CHIRITA, A. *See* CHIRITA, G.
CHIRITA, G., A. CHIRITA, J. BULACOVSCHI, and D. CHISALITA. Investigations of the Reaction of Aldehydes with the Functional Groups of Some Amino Acids of the Collagen Structure. II 572
———, and A. CIOBANU. Studies on Collagen Hydrolysis (A) 223

———. *See* TRANDAFIR, V.
CHISALITA, D. The Kinetics of Dialdehyde Combination with the Reactive Groups of Collagen (A) 179
———, and G. ALEXA. The Influence of Acidity on the Stability of the Dialdehyde-Collagen Combination (A) 222
———, and ———. The Influence of Temperature on the Combination of Aldehydes with the Functional Groups of Some Amino Acids in the Collagen Structure (A) 180
———. *See* CHIRITA, G.
CHONAN, Y. *See* TOYODA, H.
CHUNYAEVA, R. I. *See* PAVLOV, J. V.
CHURCH, R., M. TANZER, and C. LAPIERE. Identification of Two Distinct Species of Procollagen Synthesized by a Clonal Line of Calf Dermatosparactic Cells (A) 316
CIOBANU, A. *See* CHIRITA, G.
CIVARDI, F. P., and H. G. KUENSTLER. Treating Microporous Material (P) 127
———, and C. J. LATTARULO. Process for Densifying a Microporous Elastomeric Polyurethane Sheet Material (P) 554
———. *See* HARRINGTON, G. N.
CLICK, E. *See* VONDER MARK, K.
COHEN, R. E., C. J. HOOLEY, and N. G. MCCRUM. Mechanism of the Viscoelastic Deformation of Collagenous Tissue (A) 436
COLLINS, S. *See* BAILEY, D. A.
COMTE, P., and H. ZÄPFEL. Latest Status of the Technique for Dewatering and Transport of Glue Stock (A) 320
COOPER, D. R. A New Look at Curing (A) 317
———, and A. C. GALLOWAY. The Quality and Yield of Leather from Machine Fleshed Hides (A) 381
———. *See* RUSSELL, A. E.
COOPER, J. E. *See* HAPPICH, W. F.
CRAVEN, J. M. Finishing Process and Composition (P) 555
CRISTESCU, D., and V. BRATULESCU. A Study Directed at Establishing a Method for the Determination of the Conservation State in Raw Cattle Hides (A) 179
CRUZ, M. M., JR. Prosthetic Structures Derived from Collagen (P) 555
CUNNINGHAM, V. R., and BOUTLE, D. L. Method for Preparing Vapor Permeable Flexible Sheet Materials (P) 225
———. *See* HATHORN, G. S.

DAIGLE, D. J. *See* DONALDSON, D. J.
DANKO, J. T. *See* ELEN, B. L.

DAVIS, A. D. Method and Apparatus for Processing Hides (P) 227
DAVIS, M. H. Isolation of Some Chromium-Containing Peptides from Tanned Rat Tail Tendon Soluble Collagen (A) 504
———, and J. G. SCROGGIE. Investigation of Commercial Chrome-Tanning Systems. Part I. Separation of the Complexes Present by Gel Filtration and the Effects of Aging and Basification (A) 316
———, and ———. Investigation of Commercial Chrome-Tanning Systems. Part V. Recycling of Chrome Liquors in Commercial Practice (A) 435
———, and ———. Investigation of Commercial Chrome-Tanning Systems. Part IV. Recycling of Chrome Liquors and Their Use as a Basis for Pickling (A) 380
DAVIS, N. A Method for the Determination of Lysine-Derived Crosslinks (A) 315
DEASY, C. *See* MCMULLEN, M. J.
DENYSOVA, A. A. *See* BABITCH, I. Y.
DEPPING, C. L. Effect of Environment and Parasite Control on Sheepskin Pelt Condition (TN) 548
DEWAN, P. C. *See* SANDHU, J. S.
DEYL, Z. *See* ROSMUS, J.
DIXIT, S., and H. BENSUSAN. The Isolation of Crosslinked Peptides of Collagen Involving α1-CB6 (A) 315
DOBROVOLSKA, M. *See* BUKOVSKA-STRZYZEVSKA, M.
DOKOUPIL, J. Method and Apparatus for Ironing Leather (P) 129
DONALDSON, D. J., D. J. DAIGLE, G. L. DRAKE, JR., W. A. REEVES, and J. V. BENINATE. Flame Retardant Phosphorus Containing Fibrous Products and Method for Production (P) 225
DRAEGER, A. *See* LEBERFINGER, R.
DRAKE, G. L., JR. *See* DONALDSON, D. J.
DVORÁČEK, M. *See* NEDOPIL, F.
DZIEZA, R. *See* JANICKI, J.

ECKERT, G., H. HARTMAN, M. MARX, and L. WUERTELE. Process for Finishing Leather and Synthetic Leather Substitutes (P) 126
ECKERT, P., W. EGLI, and H. G. OSOLIN. Process for Printing Leather (P) 561
EDER, H. P. Reverse Osmosis: DuPont's Hollow Fiber for Waste Treatment (A) 317
EGLI, W. *See* ECKERT, P.
ELEN, B. L., V. V. BALUTENKO, and J. T. DANKO. Sorting Coefficient in Cutting of Skin for Shoe Uppers (A) 377

El-Hade, M. F. *See* El-Mariah, A. R.
Elias, S. *See* Komanowsky, M.
El-Mariah, A. F., M. F. El-Hade, R. M. Mansour, and A. Labil. Solvent Assisted Leather Dyeing: Part VI. Rates of Uptake of Dyes by Vegetable and Chrome Retanned Leather in the Presence of Benzyl Alcohol and Salts (A) 506
Elton, R. L. Method for Preparing a Microporous Sheet by Heat-Forming, Annealing and Leaching (P) 556
Elvrum, D. S. Curing and Pretannage of Hides (P) 228
———. Curing and Pretannage of Hides (P) 231
Erdmann, H., and F. F. Miller. Aluminum-Chrome Acrylic Acid Complex Tannage (P) 560
Everett, A. L. *See* Bitcover, E. H.
Eyre, D., and M. Glimcher. Analysis of a Crosslinked Peptide from Calf Bone Collagen; Evidence that Hydroxylysyl Glycoside Participates in the Crosslink (A) 315
———, and ———. Evidence for Intramolecular Crosslinks in Chicken Bone Collagen; The Isolation of Peptides Containing Allysine Aldol (A) 272

Fak, I. A. *See* Butler, E. B.
Fairheller, S. H. *See* Happich, W. F.
———. *See* Harris, E. H.
Feldshtein, M. M., and A. B. Zezin. The Nature of the Interaction of Detergents with Polypeptides and Synthetic Polyelectrolytes (A) 378
Ferebauer, R. Raw Hides and the Technical Level of Tanneries in Algeria (A) 125
Filachione, E. M. *See* Luvisi, F. P.
Filin, L. A. *See* Pavlov, J. V.
Firth, J. A., and J. A. Frump. Method of Marking the Skin or Fur of Animals (P) 126
Fischer, W., and W. Schmidt. Investigations on the Permanent and Elastic Stretch of Leather and Synthetic Upper Materials in Relation to Wear Behavior (A) 319
Fisher, W. T. Incidence of Demodicosis in Commercial Pickled Steerhides 5
Fleissner, H. Process and Apparatus for the Production of Synthetic Leather (P) 128
Fonzi, G., T. Paleologo, and G. Toso. Poromeric Materials (P) 231
———, and S. Vargiu. Poromeric Materials (P) 558
Foster, J. *See* Gray, W.

Fowler, L., and A. Bailey. Current Concepts of the Crosslinking in Bone Collagen (A) 224
Froehlich, J., J. Kraft, C. Mendla, and B. Jaskolski. Method of Producing Nonsulfonated Syntans (P) 378
Frump, J. A. *See* Firth, J. A.
Fuchs, K. African Reptile Skins (A) 224
Fujimoto, Y., K. Nagaoka, K. Tatsukawa, and Y. Koiwa. Synthetic Leather (P) 128
Fukushima, M. *See* Oohara, S.
Furthmayer, H. *See* Timpl, R.

Gajdušek, J. *See* Kupec, J.
———. *See* Svancer, J.
Galatík, A. *See* Blažej, A.
Galatík, J. Lysol Tanning of Furs by Chromic Chloride Stearate Complexes in a Less Polar Medium (A) 178
Galloway, A. C. *See* Cooper, D. R.
Gebauer, A. *See* Paryjczak, J.
Ghosh, S. P. *See* Sandhu, J. S.
Glimcher, M. *See* Eyre, D.
Golavteyova, A. A. *See* Gureva, L. I.
Goodwin, A. J., and H. E. Nursten. Polyphenols of Acacia arabica Pods (A) 436
Grapin, B. P. Method for Fixing a Lining (P) 553
Gray, W., L. Sandberg, and J. Foster. Molecular Model for Elastin Structure and Function (A) 434
Greif, M., and J. A. Cala. The Adhesion of a Leather Finish 523
Greifeneder, J. G. Tannery Effluent 452
Grigera, J. R., A. A. Acosta, and V. D. Vera. Determination of the Equivalent Pore Radius in Leather (TN) 373
Griggs, A. L. *See* Stepan, A. H.
Grimley, S. S. Financial Aspects of Leather Research with Special Reference to Small Companies (TN) 19
Gross, J. *See* Bruns, R.
———. *See* Buff, F.
———. *See* Healy, L. W.
Gruber, H. A., E. F. Mellon, and H. W. Jones. A Comparison of Electrical Methods with Chemical Methods for the Analysis of Pickled Hides 396
Gureva, L. I., R. M. Vasenin, and A. A. Golavteyova. Character of Absorption and Distribution of Syntan BNS in Raw and Chrome-Tanned Semifinished Products (A) 378

GUTIERREZ, T., and W. AMARAL. Article Abrading Apparatus (P) 225
GUY, R. The Effect of Heat Setting on the Low Stress/Strain Characteristics of a Full Chrome Side Leather (A) 435

HABIB, E. E. Synthetic Suede Fabrics (P) 557
HAGER, D. G. Industrial Wastewater Treatment by Granular Activated Carbon (A) 382
HAINES, B. M. Fiber Structure and the Physical Properties of Leather 96
———. The Temporary Preservation of Sheepskins: Trials with Vantocil IB (A) 318
———, and R. L. SYKES. Some Properties of Pickled Hides (A) 434
HALÁMEK, C. *See* HORÁK, J.
HALPERN, A., and E. J. SASMOR. Deproteinizing Protein-Containing Solutions (P) 226
HANKIEWICZ, J. *See* MICHLÍK, I.
HANSSON, A. Treatment of Leather (P) 553
HAPPICH, W. F., M. L. HAPPICH, J. E. COOPER, S. H. FEAIRHELLER, M. M. TAYLOR, D. BAILEY, H. W. JONES, E. F. MELLON, and J. NAGHSKI. Recovery of Proteins from Lime-Sulfide Effluents from Unhairing Cattlehides 50
HAPPICH, M. L. *See* HAPPICH, W. F.
HARENBERG, O. *See* HEIDEMANN, E.
HARRINGTON, G. N., and F. P. CIVARDI. Suede-Like Materials (P) 557
HARTMAN, H. *See* ECKERT, G.
HATHORN, G. S., and V. R. CUNNINGHAM. Water Vapor-Permeable Flexible Sheet Materials (P) 560
HAUCK, R. A. Some Notes on Utilization of Fleshings and Blue Shavings .. 195
HAYES, S., JR. Microporous Sheets and Processes (P) 128
———. Process for Forming Microporous Sheet (P) 561
HEALY, L. W., W. L. WANG, and J. I. GROSS. Supple Fibrous Sheet (P) 554
———. *See* BUFF, F.
HEIDEMANN, E. The Source of the Strength of Animal Hide (A) 44
———, and O. HARENBERG. A Simple Method for Determining the Chromium Content of Used Chrome Liquors (A) 320
———, and K. OGAWA. Where Are Tannin and Auxiliary Agents Fixed in the Hide Fiber Network? (A) 319
HEILAND, W. K. *See* KOMANOWSKY, M.
HELING, W. Non-Woven Fabric (P) 130
HENDERSON, W. E., and C. B. ROSS. Method for Preparing Collagen Compositions (P) 558

HERFELD, H. Sidelights on the History of German Leather Science (A) 277
———, and I. STEINLEIN. Improvement of Split Leather by Laminating with Foil (A) 275
———, and ———. Investigations on the Manufacture of "Roll Goods" from Split Leather (A) 276
———, K. SCHMIDT, and J. MUSER. The Changes of Area, Thickness, Volume, Weight, and Density of Hide in the Separate Steps of Beamhouse Operations During the Manufacture of Upper Leather and Their Dependence on Working Conditions (A) 584
HERSCH, M. *See* JIMENEZ, S.
HOCHE, W. Multi-Color Shoe Sole Blanks (P) 129
HOFFMANN, R. Method of Seamless Connection of Leather and/or Synthetic Leather Parts, or the Like, Material and Apparatus for Performing the Method (P) 227
HOOLEY, C. J. *See* COHEN, R. E.
HOPKINS, W. J. *See* LUVISI, F. P.
HORÁK, J., V. CERVENY, C. HALÁMEK, and J. LUDVÍK. Industrial Wastes and Protection of Living Conditions (A) 125
HÜNI, H. New Developments in the Field of Process Control for Drums and Mixers (A) 275
HURDUE, D., and L, VAN TRUYEN. A Micromethod for Trypsin Determination (A) 179

IGARASHI, S., R. TRELSTAD, and A. KANG. Physical-Chemical Properties of Chick Cartilage Collagen (A) 272
IMAI, T. *See* TOYODA, H.
INGAMELLS, W. *See* PETERS, R. H.
IONESCU, T. D. Purification of Waste Waters Highly Loaded with Organic Matters, Originating from Huge Zootechnic Units and from Slaughterhouses (A) 178

JANICKI, J., and R. DZIEZA. Method of Loosening Felt (P) 378
JANSKY, K. Contribution to Natural Dewatering of Sludge in Sand Beds (A) 124
———. *See* LUDVÍK, J.
———. *See* SIŠKA, S.
JASKOLSKI, B. *See* FROEHLICH, J.
JAYARAMAN, K. S., T. S. KRISHNAN, D. RAMASWAMY, and T. S. RANGANATHAN. Studies on Self-Basifying Systems in Chrome Tanning (A) 504
———. *See* RANGANATHAN, T. S.
JIMENEZ, S., M. HERSCH, and J. ROSENBLOOM. Hydroxyproline Stabilizes the Triple Helix of Chick Tendon Collagen (A) 278

JOHNSON, V. L., R. S. BURNETT, and E. V. MATERN. Method of Preparing Polypeptides (P) 227
JONES, H. W. *See* GRUBER, H. A.
———. *See* HAPPICH, W. F.
JOSEPH, K. T. *See* NAYUDAMMA, Y.

KANG, A. *See* IGARASHI, S.
KANG, A. H. *See* KATZMAN, R. L.
KATZ, E., and TUNG LI, S. The Intermolecular Space of Reconstituted Collagen Fibrils (A) 224
KATZMAN, R. L., A. H. KANG, and E. H. BEACHEY. Collagen-Induced Platelet Aggregation: Involvement of an Active Glycopeptide Fragment (α1-CB5) (A) 436
KAWAMURA, A. *See* TOYODA, H.
KEDLAYA, K. J., N. RAMANATHAN, and Y. NAYUDAMMA. Studies on Shrinkage Phenomenon. Part XIII. Area Shrinkage Properties of Leather (A) 550
KEMPIN, W. *See* RUFFER, H.
KHANNA, J. K., P. S. VENKATACHALAM, K. PARTHASARTHY, and V. V. SUBRAMANIAM. Tanning of Goat and Sheep Skins for Foot Rugs, Etc. (A) 552
KIM, B. N., B. A. BUZOV, and N. K. BARAMBOIM. Thermomechanical Properties of Skin at Low Temperatures (A) 377
KISHIDA, Y. *See* OLSON, B. R.
KOCH, O. *See* TRAUBEL, H.
KOIWA, Y. *See* FUJIMOTO, Y.
KOLYESNIKOVA, N. I. *See* BABITCH, I. Y.
KOMANOWSKY, M., H. I. SINNAMON, S. ELIAS, W. K. HEILAND, and N. C. ACETO. Production of Comminuted Collagen for Novel Applications 140
KÖNIGFELD, G. Investigations on the Effect of Chromium Compounds on the Biological Treatment of Sewage in the Presence of Tannery Waste Water (A) 45
KONDO, K. *See* SAKIMOTO, Y.
KONIG, K. *See* TRAUBEL, H.
KOOPMAN, R. C. *See* VAN VLIMMEREN, P. J.
KOPALIESHVILI, D. *See* ARTAMONOV, V. B.
KOSINSKI, M. *See* BUKOVSKA-STRZYZEVSKA, M.
KRAFT, J. *See* FROEHLICH, J.
KRAUS, A. *See* RUFFER, H.
KRISHNAN, T. S. *See* JAYARAMAN, K. S.
KUENSTLER, H. G. *See* CIVARDI, F. P.
KUHN, K. *See* TIMPL, R.

———. *See* ZIMMERMAN, B.
KUPEC, J., J. GAJDUŠEK, and J. SVANCER. Contribution to the Evaluation of Biological Treatment of Effluents Mixed with Municipal Waste Waters. Part II (A) 178
———. *See* SVANCER, J.
KUROIWA, S. *See* OGASAWARA, S.

LABIB, A. *See* EL-MARIAH, A. R.
LANDMANN, A. W. Fastness and Color Measurement Committee. Minutes of 43rd Meeting (A) 316
LANGERWERF, J. S. A. The Determination of Hydroxyproline in Collagenous Materials (A) 277
LANGMAIER, F., and M. MLÁDEK. Remarks on the Method of Determining Water Vapor Permeability of Shoemaking Materials Conforming to CSN Standard 79 3817 (A) 46
LAPIERE, C. *See* BAILEY, A.
———. *See* CHURCH, R.
———. *See* TIMPL, R.
LATTARULO, C. J. *See* CIVARDI, F. P.
LEAFE, M. K. *See* BAILEY, D. A.
LEBERFINGER, R., and A. DRAEGER. A Simple Method for Preserving a Standard Leather Substrate for Fatliquoring and Dyeing Studies by Dehydrating with Acetone (A) 44
LEE, N. F. A New Waterproofing Retannage (A) 435
LEŠKA, A. Tannery Machines 1971 (A) 124
LEVY, J. F., S. H. LEWIS, and W. C. PRENTISS. Isothiazolones in Leather Preservation. I. Chrome Stock 280
LEWIS, S. H. *See* LEVY, J. F.
LEWIS, S. N., and M. R. YUNASKA. Nitrocellulose-Modified Urethane Coating Compositions and Their Use in Finishing Leather (P) 554
LHUEDE, E. P. The Drying Characteristics of Chrome-Tanned Leather (A) 318
LINE, L. L. *See* BUTLER, E. B.
LUDVÍK, J., K. JANSKY, J. BÖHM, and S. SIŠKA. Engineering Methods of Process Solutions in the Treatment of Tannery Effluents 438
———. *See* HORÁK, J.
———. *See* SIŠKA, S.
LUVISI, F. P., E. M. FILACHIONE, and W. J. HOPKINS. Lubricants for Hides and Leather (P) 230
———, ———, and ———. Process for Lubricating Leather (P) 556

MADIYEV, U. K. *See* RYBALTCHENKO, E. I.
MAKAROV-ZIEMLENSKI, Y. Y. Quantitative Determination of Chromium (III) in Natural Organic Substances (A) 380

MANDELKERN, L., and VAN DUZEE, B. Shortening Velocity of Collagen and Muscle Fibers (A) 273
MANSOUR, R. M. *See* EL-MARIAH, A. R.
MARES, M. Contributions to the Study of Crude Oil Permeability and Adsorption in Some Types of Leather Used to Manufacture Work Protective Outfits (A) 222
MARX, M. *See* ECKERT, G.
MATERN, E. V. *See* JOHNSON, V. L.
MATSUNAGA, A. *See* TOYODA, H.
McCRUM, N. G. *See* COHEN, R. E.
McMULLEN, M. J., and C. DEASY. The Effect of Some Chelating Agents on the Tensile Strength and Toughness Index of Steerhide 251
MELLON, E. F. *See* GRUBER, H. A.
———. *See* HAPPICH, W. F.
MENDLA, C. *See* FROEHLICH, J.
MEO, D., JR. The 1974 John Arthur Wilson Memorial Lecture — Leather — Its Opportunities and Romance 384
METELKIN, A. A. Some Experiences of the Leather Industry in the USSR in Research and Production of Sole Leather (A) 47
———. *See* ARTAMONOV, V. B.
METELKIN, A. I. *See* BABITCH, I. Y.
MICHLÍK, I., and A. BLAŽEJ. Characterizing of Some Leather Finishes and Some Synthetic Shoemaking Materials by the DTA Method (A) .. 94
———, P. SMEJKAL, A. BLAŽEJ, K. STUDNIARSKI, and J. HANKIEWICZ. Differential Thermal Analysis and Calorimetry of Cleaved Proteins (A) 46
———. *See* BLAŽEJ, A.
MILLER, A., and D. PARRY. Structure and Packing of Microfibrils in Collagen (A) 272
MILLER, E. Structural Studies on Cartilage Collagen Employing Limited Cleavage and Solubilization with Pepsin (A) 273
MILLER, F. F. *See* ERDMANN, H.
MILLER, G. T. Leather Treatment (P) 557
MILLER, P. E. Method of Producing a Nonwoven Pile Product (P) 555
MITTMAN, E. Abraded Suedelike Sheeting and Process for Same (P) 128
MIZUGUCHI, S. *See* OKAMOTO, M.
MLÁDEK, M. *See* LANGMAIER, F.
———. *See* SMEJKAL, P.
MOINUDDIN, J. *See* PRIEST, R. E.
MONEY, C. A. Short-Term Preservation of Hides. II. The Use of Zinc Chloride or Calcium Hypochlorite as Alternatives to Sodium Chlorite 112

Morohashi, Y., and H. Okamura. Investigations on Chrome Tanning Conditions in Taiwan (A) 586
Motoyishi, H., and H. Okamura. Studies on Sampling Method for Measuring of Mechanical Properties of Chrome Leather. VI. Influence of Cutting into a Pair of Sides in the Salted State Upon the Mechanical Properties of Chrome Calf Leather (A) 587
Motyčka, K., and V. Svoboda. Evaluation of the Quality of Side Box According to Physical and Subjective Properties (A) 124
Müller, J. Development Trends of the Leather Tanning Industry (A) 125
———. Italian Tanneries (A) 94
Muser, J. *See* Herfeld, H.

Nabokov, V. S. *See* Artamonov, V. B.
Nagaoka, K. *See* Fujimoto, Y.
Naghski, J. *See* Bitcover, E. H.
———. *See* Happich, W. F.
Nandy, S. C. *See* Sivaparvathi, M.
———. *See* Venkatesan, R. A.
Nanescu, V., and G. Alexa. Investigations Concerning the Reaction of Some Amino Acids, Collagen Constituents, with Zirconium Salts (A) 180
Navratil, B. *See* Navratil, Z.
Navratil, Z., and B. Navratil. Contribution to the Problem of Continuous Inspection of Through-Flows of Liquids in Leather Production (A) 377
Nayudamma, Y., K. Panduranga Rao, and K. T. Joseph. Chemical Modification of Collagen by Grafting It with Monomers of the Vinyl Type (A) 47
———. *See* Kedlaya, K. J.
Nedopil, F., R. Praus, I. Brettschneider, and M. Dvoráček. Mucopolysaccharides in the Skin of Calves (A) 124
———. *See* Sulcová, H.
Nikolsky, V. A. *See* Pavlov, J. V.
Nishijima, Y. *See* Oohara, S.
Noone, T. M. Synthetic Composite and Process for Preparing (P) 559
Nouchy, C. E. Process for the Manufacture of Synthetic Leather Material (P) 129
Nowak, R. Synthetic Fatliquors (A) 318
———. The Bonding of Fats in Leather (A) 45
Nursten, H. E. *See* Goodwin, A. J.

Obrink, B. A Study of the Interactions Between Monomeric Tropocollagen and Glycosaminoglycans (A) 274

Ogasawara, S., and S. Kuroiwa. Bonding Between Acid Dyes and Tannic Acid (A) 434
Ogawa, K. *See* Heidemann, E.
Okamoto, M., S. Mizuguchi, and K. Watanabe. Process of Manufacturing Collagen Fiberlike Synthetic Superfine Filament Bundles (P) 127
Okamura, H., and K. Shirai. A Consideration of the Mechanism of Oil Tanning and Its Method of Analysis 322
———. *See* Morohashi, Y.
———. *See* Motoyishi, H.
———. *See* Shirai, K.
Olson, B. R., R. A. Berg, Y. Kishida, and D. J. Prockop. Collagen Synthesis: Localization of Prolyl Hydroxylase in Tendon Cells Detected with Ferritin-Labeled Antibodies (A) 436
Olson, F. C., and J. C. Trautman. Hydrolysate of Collagen as a Sausage Ingredient (P) 229
Omura, M. *See* Sygiyama, M.
Oohara, S., K. Amemiya, Y. Nishijima, M. Fukushima, and K. Shimizu. Method of Manufacturing Artificial Leather (P) 558
Oronsky, A., R. Perper, and H. Schroder. Phagocytic Release and Activation of Human Leukocyte Procollagenase (A) 434
Osolin, H. G. *See* Eckert, P.
Osugi, T. *See* Takenouchi, K.
Otterstedt, J.-E. A. Properties of Gelatin-Bonded Synthetics After Tanning 564
Outtrup, H. *See* Aunstrup, K.

Paleologo, T. *See* Fonzi, G.
Palm, W. E. *See* Bitcover, E. H.
Panduranga Rao, K. *See* Nayudamma, Y.
Panek, M. *See* Swietonovski, A.
Papalos, J. G., and C. E. Retzsch. Sperm Oil Substitute and Its Use in Leather Treatment (P) 554
Parry, D. *See* Miller, A.
Parthasarathy, K. *See* Khanna, J. K.
Paryjczak, J. and A. Gebauer. Calculation of Specific Surface and Adsorption Isotherms of Argon for Natural Leathers by the Gas Chromatography Method (A) 377
Pavlov, J. V., A. A. Petrov, V. A. Nikolsky, R. I. Chunyaeva, and L. A. Filin. Pelt Fleshing Machine (P) 229
———, ———, ———, ———, and ———. Pelt Fleshing Machine (P) .. 555
Perkins, R. J. *See* Stepan, A. H.
Perper, R. *See* Oronsky, A.

PETERS, R. H., and W. INGAMELLS. Theoretical Aspects of the Role of Fiber Structure in Dyeing (A) 382
PETERSEN, R. E. *See* WISTOZKY, R.
PETROV, A. A. *See* PAVLOV, J. V.
PFUNDT, G. Safety of Tannery Machinery — A Problem of Special Importance for Trouble-Free Operation in Leather Factories (A) 277
PILLARD, C. Treatment Barrel (P) 226
PIRICH, E. P. *See* SAGOSCHEN, J. A.
PIRKL, F. Social Problems of Automation (A) 317
PLAPPER, J., W. STEIN, and H. BAUMANN. Fatliquoring Compositions (P) 555
———. *See* STEIN, W.
PLASCHKE, R. Measurements of the Physical Constants of Binder Films and Their Influence on the Properties of the Finish (A) 275
PLECHAČ, B. Famosa Through-Feed Ironing Machines (A) 124
———. Needled Fine Felt Jacket for Famosa Ironing Machines (A) 177
———. The Influence of Specific Pressure on Total Characteristics, Appearance, and Uniformity of Leather Quality (A) 94
POJARLIEFF, G. Development of Technologies Based on the Repeated Use of the Float (A) 505
POPPEL, P. *See* RICHTER, G.
PRADZYNSKI, W. *See* ZURAHOVSKI, M.
PRAUS, R. *See* NEDOPIL, F.
PRENTISS, W. C. *See* ALPS, H. A.
———. *See* LEVY, J. F.
PRIEST, J. H. *See* PRIEST, R. E.
PRIEST, R. E., J. MOINUDDIN, and J. H. PRIEST. Collagen of Marfan Syndrome Is Abnormally Soluble (A) 317
PROCKOP, D. *See* BERG, R.
———. *See* OLSON, B. R.

RAGHUNATHA RAO, D., S. C. SUMATHI, and V. V. SUBRAMANIAM. Shellac-Based Varnishes and Glazable Binder for Leather (A) 551
RAMANATHAN, N. *See* KEDLAYA, K. J.
———. *See* VANKATAPPAIAH, B.
RAMASWAMY, D. *See* JAYARAMAN, K. S.
RANGANATHAN, T. S., K. S. JAYARAMAN, and D. RAMASWAMY. Rationalization of Zirconium Tannage (A) 505
———. *See* JAYARAMAN, K. S.
RAYMOND, A. E. Composition and Method for Surfacing Leathers and Leather Substitutes Based on Filled Polyurethane Latex (P) 230
REED, R. *See* BARLOW, J. R.
REEVES, W. A. *See* DONALDSON, D. J.

REPETTO, S. Automatic Thickness Regulator for Skin-Shaving Machines (P) 559
———. Skin Splitting Machine (P) 227
RESSLER, N. An Improved Technique for the Near Infrared Study of Water Binding by Protein Illustrated with Gelatin (A) 274
RETZSCH, C. E. *See* PAPALOS, J. G.
RICHTER, G., and P. POPPEL. Leather Shaving Machine (P) 229
RIEGER, W., and H. W. SCHNEIDER. Shrunken Leather Today (A) 275
ROBINSON, K. S. *See* BAILEY, D. A.
ROSENBLOOM, J. *See* JIMENEZ, S.
ROSMUS, J., and O. VANČÍKOVÁ. Ten Years of Collagen Conferences in Czechoslovakia (A) 125
———, ———, and Z. DEYL. Depolymerization of Insoluble Collagen by Agents Splitting the Aldimine Crosslinks (A) 177
———. *See* VANČÍKOVÁ, O.
ROSS, C. B. *See* HENDERSON, W. E.
RUBIN, R. M. Golf Shoe (P) 560
RUFFER, H., W. KEMPIN, and A. KRAUS. Apparatus for Treating Hide and Leather Pieces in Tanneries (P) 553
RUSSELL, A. E., and D. R. COOPER. Physical Testing of Karakul Pelts (A) 381
RYBALTCHENKO, E. I., U. K. MADIYEV, L. B. SANKIN, and I. P. STRAHOVE. Studies on the Mechanism of Tanning on Model Compounds (A) 376

SACKS, B. R. Recent Developments on Water Pollution Legislation 133
SAGOSCHEN, J. A., and E. P. PIRICH. Sweetened Chestnut Extracts in the Retanning of Chrome Leather 340
SAKIMOTO, Y., and K. KONDO. Studies on the Manufacture of Beaver Lamb. IV. Influence of Killing on the Physical Properties and the Mordanting (A) 587
———. *See* TAKENOUCHI, K.
SANDBERG, L. *See* GRAY, W.
SANDHU, J. S., P. C. DEWAN, and S. P. GHOSH. Improved Method of Bag Tanning and Semi-Chroming for Football, Volleyball and Basketball Covers (A) 550
SANKIN, L. B. *See* RYBALTCHENKO, E. I.
SANTHANAM, P. S. Studies on the Phenolic Constituents of Dhawa: Part I. Fixation on Chemically Modified Substrate (A) 506
———. Studies on the Phenolic Constituents of Dhawa Leaves: Part II. Affinity Studies (A) 550
SASMOR, E. J. *See* HALPERN, A.
SCARIA, K. J. *See* SRINIVASAN, T. S.

SCHAEFER, P. Special Films and Processes for Covering Split Leather for Manufacture of High Frequency Embossed Shoe Upper Material (A) 44
SCHMIDT, K. Values for the Water Vapor Transmission and Wear Comfort of Shoes (A) 224
———. *See* HERFELD, H.
SCHMIDT, W. *See* FISCHER, W.
SCHNEIDER, H. W. *See* RIEGER, W.
SCHRODER, H. *See* ORONSKY, A.
SCHUBERT, R. 25 Year Development of Leather Fatliquoring — A Comprehensive Literature Report (A) 376
SCOWCROFT, F. *See* ATKINSON, J. H.
SCROGGIE, J. G. *See* DAVIS, M. H.
SELIGSBERGER, L. Determination of the Surface Absorption of Water Vapor and Liquid Water by Leather and Other Sheet Materials 236
SEN, S. N. *See* VENKATESAN, R. A.
SHESTAKOVA, I. S. *See* SHISHKIN, Y. I.
SHIKADA, T. Method for Producing Microporous Sheet Material (P) 557
SHIMIZU, K. *See* OOHARA, S.
SHIRAI, K., and H. OKAMURA. Influences of Cleaning Conditions on Properties of Chrome Leather (A) 588
———, and ———. Studies on Fatty Substances of Hide and Leather. XI. Comparison of Preparing Conditions of Sulfited Oil and Its Properties (A) 585
———, and ———. Studies on Fatty Substances of Hide and Leather. XII. Fatliquoring Effects of Sulfited Oil (A) 586
———, and ———. Studies on Fatty Substances of Hide and Leather. XV. Influences of Fatliquoring Agents on Mechanical Properties of Chrome Collagen Fibers (A) 587
———. *See* OKAMURA, H.
SHISHIDO, T. *See* SUGIYAMA, M.
SHISHKIN, Y. I., O. O. BABLOYAN, Z. K. BALDANO, and I. S. SHESTAKOVA. Thermographical Investigation of Dependence of "Shrinkage" Temperature of Dry Collagen and Basic-Salt Treatment (A) 379
SHUTTLEWORTH, S. G. Future Developments in Leather Manufacture. The Atkin Memorial Lecture, September, 1972 (A) 317
SIEGLER, M. New Evolution in the Manufacture of Side Leather 28
SIMOVÁ, J., and Z. SIMUNEK. Properties of Gelatin Prepared from Hide Collagen by Various Methods (A) 178
SIMUNEK, Z. *See* SIMOVÁ, J.
SINN, G., and W. VON LANGENTHAL. Coating Base for Synthetic Leather Manufacture (A) 434
SINNAMON, H. I. *See* KOMANOWSKY, M.

Siška, S., J. Ludvík, and K. Jansky. Biological Treatment of Vegetable Tannery Waste Waters (A) 94
———. *See* Ludvík, J.
Sivaparvathi, M., and S. C. Nandy. Evaluation of Preservatives for Skin Preservation 349
Skowerenda, J. *See* Bukovska-Strzyzevska, M.
Smejkal, P., A. Blažej, and M. Mládek. Arginine Modifications in Collagen (A) 177
———. *See* Michlík, I.
Smith, W. L. A Tanner Looks at the Federal Water Pollution Control Act Amendments of 1972 157
Sobieraj, B. *See* Swietonovski, A.
Solomkin, V. I., and C. J. Tshuvilo. Examination of the Ultrasonic Method of Determining the Density of Extracts of Vegetable Tanning Agents (A) 377
Srinivasan, T. S., K. J. Scaria, and S. K. Barat. A New Source for Exotic Leathers (A) 504
Stamp, D. H. An Improved Method for the Extraction of Fatliquor from Leather 290
Stein, W., J. Plapper, and W. Willmund. Fatliquoring Agents for Leather and Skins (P) 129
———. *See* Plapper, J.
Steinlein, I. *See* Herfeld, H.
Stepan, A. H., R. J. Perkins, and A. L. Griggs. Waterlaid Leather Substitute Sheet and Method for Preparing the Sheet (P) 553
Steven, F. Current Concepts of Collagen Structure (A) 224
Strahove, I. P. *See* Rybaltchenko, E. I.
Studniarski, K. *See* Michlík, I.
Subramaniam, V. V. *See* Khanna, J. K.
———. *See* Raghunatha Rao, D.
Sumathi, S. C. *See* Raghunatha Rao, D.
Sütterlin, N. Relation Between Composition and Film Properties of Acrylic Resin Dispersions (A) 277
Sugiyama, M., T. Shishido, and M. Omura. Method for Hardening Gelatin (P) 229
Sulcová, H., and F. Nedopil. Chemical Composition of Skins of Calves Fed with Milk Fodder (A) 177
Sutton, R. G. Production of Polyurethane Film/Split Leather Laminate (P) 127
Svancer, J., J. Kupec, and J. Gajdušek. The Contribution to the Evaluation of Biological Treatment of Effluents Combined with Municipal Waste Water (A) 94
———. *See* Kupec, J.

Svoboda, V. *See* Motyčka, K.
Swietonovski, A., M. Panek, and B. Sobieraj. The Influence of Waterproofing on the Hygienic Properties of Leathers (A) 378
Sykes, R. L. A Positive Approach to the New Pressure Groups — the Consumerists and the Environmentalists (A) 382
———. Some Ways by Which the Leather Industry Can Meet Current Challenges (A) 318
Sykes, R. L. *See* Haines, B. M.

Takenouchi, K., T. Osugi, and Y. Sakimoto. Studies on Chrome Tan Liquor. I. Co-ordination of α-Amino Acid to Chromium (A) 586
Tancous, J. J. A Study of Fat Spew by Gas Chromatography 66
Tanzer, M. *See* Church, R.
Tatsukawa, K. *See* Fujimoto, Y.
Taylor, M. M. *See* Happich, W. F.
———. *See* Harris, E. H.
Tchaikovski, R. I. Improvement of the Quality of Chromium Pigskin (A) 377
Timpl, R., G. Wick, H. Furthmayer, C. Lapiere, and K. Kuhn. Immunochemical Properties of Procollagen from Dermatosparactic Calves (A) 274
———. *See* Zimmerman, B.
Toso, G. *See* Fonzi, G.
Toyoda, H., Y. Chonan, T. Imai, A. Matsunaga, and A. Kawamura. Chemical Modifications of Collagen Fibers. I. Preparation and Some Properties of Succinylated Collagen Fibers (A)..... 585
Trandafir, V., and G. Chirita. The Rheological Behavior of Collagen Solution (A) 223
Traubel, H., K. Weber, O. Koch, and K. Konig. Fiber Fleeces and Synthetic Leathers (P) 559
Trautman, J. C. *See* Olson, F. C.
Trelstad, R. *See* Igarashi, S.
Tshuvilo, C. J. *See* Solomkin, V. I.
Tung Li, S. *See* Katz, E.

Vago, G., and A. Weiczner. Investigating the Fixation of Fatliquors on Leather (A) 178
Vančíková, O., and J. Rosmus. Chemical Modifications of Collagen (A) .. 178
———. *See* Rosmus, J.
Van Duzee, B. *See* Mandelkern, L.
Van Truyen, L. *See* Hurdue, D.
Van Vlimmeren, P. J., and R. C. Koopman. The Influence of Short and Equilibrium Pickling and of Fixation After Chrome Tanning on Chromium Bonding and Stratographic Chromium Distribution (A) .. 376

———. *See* Vos, A.
Vargiu, S. *See* Fonzi, G.
Vasenin, R. M. *See* Gureva, L. I.
Veis, A. *See* Volpin, D.
Venkatachalam, P. S. *See* Khanna, J. K.
Vankatappaiah, B., and Ramanathan, N. A Study on the Rate of Growth of the Feet of Children (A) 551
Venkatesan, R. A., S. C. Nandy, and S. N. Sen. Sheep Scab and Its Effect on Skin and Leather Quality (A) 504
Vera, V. D. *See* Grigera, J. R.
Volpin, D., and A. Veis. Cyanogen Bromide Peptides from Insoluble Skin and Dentin Bovine Collagens (A) 272
Vonder Mark, K., E. Click, and P. Bornstein. The Immunology of Procollagen. Development of Antibodies to Determinants Unique to the Pro α1 Chain (A) 274
Von Langenthal, W. *See* Sinn, G.
Vos, A., and P. J. Van Vlimmeren. Topographical Differences in Physical Properties (A) 316
Vrancken, M. N., and J. F. Willems. Preparation of New Protein Derivatives by Reacting Gelatin with Aromatic Compounds Containing Stilbene or Diphenylimidazolone Groups (P) 230

Wang, W. L., *See* Healy, L. W.
Watanabe, K. *See* Okamoto, M.
Watson, G. A. Process for Making Artificial Leather from Lapped Fibrous Structures (P) 228
Weber, K. *See* Traubel, H.
Weber, W. Characteristics Imparted by Finishing to the Properties of Shoe Upper and Other Light Leathers (A) 277
Weiczner, A. *See* Vago, G.
Wick, G. *See* Timpl, R.
Willmund, W. *See* Stein, W.
Willems, J. F. *See* Vrancken, M. N.
Windus, W. *See* Bitcover, E. H.
Wistozky, R., and R. E. Petersen. Method of Making Suedelike Plastic (P) 126
Wolstenholme, S. IULCA Report of the Physical Testing Commission, 1971–72 (A) 316
Wuertele, L. The Development of Polymer Dispersions for Finishing Leather (A) 277
———. *See* Eckert, G.

Yunaska, M. R. *See* Lewis, S. N.

ZACEK, L. Mechanism of Coagulation Processes Taking Place in the Course of Water Treatment (A) 380
ZÄPFEL, H. *See* COMTE, P.
ZAYONTCHKOVSKI, A. D. *See* BABIN, G. Y.
ZEZIN, A. B. *See* FELDSHTEIN, M. M.
ZIMMERMAN, B., R. TIMPL, and K. KUHN. Intermolecular Crosslinks of Collagen. Participation of the Carboxy-Terminal Nonhelical Region of the α1 Chain (A) 315
ZURABJAN, K. M., N. S. AFONSKAJA, and N. P. BUCHAROVA. Dispersion Polymers for Leather Impregnation (A) 177
ZURAKOVSKI, M., and W. PRADZYNSKI. The Influence of Ultrasonation on the Extraction of Hydrolyzable Tannins (A) 377

SUBJECT INDEX

ACETO, NICHOLAS C., Biography 423
ACOSTA, A. A., Biography 363
ALCA
Audit Report 266, 431
Business Meeting Minutes 535
Call for Papers for 1974 Annual Meeting 18
Call for Papers for 1975 Annual Meeting 583
Candidates for 1974 Election 87
Change in Editor-in-Chief 303
Council Meeting Minutes 15, 215, 428
Course in Leather Technology Notice 266
Directory Changes 87, 303, 546
Editor-in-Chief Retirement 368
Highlights of the Seventieth Annual Meeting 366
John Arthur Wilson Memorial Lecture Announcement, 1974 123
Mutual Membership Dues with SLTC 583
O'Flaherty Award 370
Prize Paper for Fourteenth IULTCS Congress 220, 265
Program for 1974 Annual Meeting 207
Proposed Change in By-Laws 213
Report of Hide Powder Committee 537
Report of Joint ALCA-ASTM Committee D-31 ..... 539, 543
Report of Rawstock Committee 462
Report of Research Liaison Committee 538
Report of Specifications Review Committee 538
Status of the Association 432
Aldehydes
reaction of with amino acids 572

Amino acids
production of from hide scraps 211
reaction of with aldehydes 572
coördination of to chromium 586
Analysis
electrical and chemical methods of 396
of pickled hides 396
Apparatus
for abrading 225
automatic thickness regulator for skin-shaving 559
for fleshing 555
for ironing 177
for ironing leather 124, 129
for pelt fleshing 229
for processing hides 227
for shaving 229
for splitting 227
for tanneries 124
for tanning 226, 232, 234
for treating leather 553
process control of 275
rotary drum 231
safety of 277
Armstrong, T. D., Biography 175
Atkin Memorial Lecture 317
Automation, social problems of 317

Bailey, D., Biography 85
Beamhouse 209, 584
Betaines, as leather lubricants 212
Bitcover, E. H., Biography 532
Blue shavings, utilization of 195
Blue stock
analysis of 462
determination of strength of 211
Bohm, Jiri, Biography 460
Bulacovschi, J., Biography 581

Cala, J. A., Biography 532
Calcium hypochlorite, use of in hide preservation 112
Casnocha, Joseph A., Biography 85
Chelating agents, effect of on tensile strength of hide 251
Chestnut extracts, retanning with 340
Chiffert, Marcel, Biography 301

CHIRITA, A., Biography 581
CHIRITA, G., Biography 581
CHISALITA, D., Biography 581
Chrome stock, preservation of by isothiazolones 280
Chrome tanning 586
  effect of pickling on 376
  of pigskins 377
  self-basifying systems in 504
Chrome-tanning systems
  complexes in 316
  coördination of to amino acids 586
  effect of aging and basification on 316
Chromium
  determination of in organic substances 380
  determination of in used chrome liquors 320
Collagen
  abnormal 317
  action of pepsin on 273
  aggregation of platelets by 436
  aldimine crosslinks of 177
  applications of 410
  biosynthesis of 316, 436
  chemical modification of 178, 585
  cleavage of 273
  combination of with aldehydes 180
  conferences on 125
  crosslinks in 177, 224, 272, 273, 274, 315
  depolymerization of 177
  determination of hydroxyproline in 277
  diameters of fibrils of 382
  graft polymerization on 47
  hydrolysate of as a sausage ingredient 229
  hydrolysis of 223
  immunochemical properties of 274
  interactions of with glycosaminoglycans 274
  isolation of peptides from chrome-tanned 504
  kinetics of reaction of with dialdehydes 179
  method of preparing compositions of 558
  modification of arginine of 177
  peptides from 272, 315
  physical-chemical properties of chick cartilage 272
  preparation of polypeptides from 227
  production of comminuted 410

prosthetic structures from 555
reaction of amino acids of with aldehydes 572
reaction of amino acids of with zirconium 180
reconstituted fibrils of 224
rheological behavior of solutions of 223
role of hydroxyproline in stabilizing 278
shortening velocity of fibers of 273
shrinkage temperature of 379
structure of 224, 273
structure and packing of microfibrils of 272
use of for non-woven fabric 130
viscoelastic deformation of tissue of 436
X-ray testing of sodium sulfate crystals in films of 379
COOPER, JOSEPH EASTON, SR., Biography 85

DEASY, C., Biography 262
Demodicosis in pickled hides 5
DEPPING, C. L., Biography 532
Differential thermal analysis
characterization of finishes by 94
of proteins 46
Drycleaning, lubricants resistant to 212
Dyeing
definition of terms used in 382
of side leather 89
role of fiber structure in 382
solvent-assisted 506
standard substrate for 44
Dyes
acid 434
color measurement of 316
fastness of 316

Elastin
structure of 434
Effluents. *See* Waste water.
ELIAS, STANLEY, Biography 423
Enzymes, production of proteolytic 128
Enzyme unhairing, determination of tryptic activity in 179
EVERETT, A. L., Biography 532
Evolution in the manufacture of side leather 28

Fatliquoring
bonding of fats to leather in 45

history of 376
standard substrate for 44
with sulfited oils 586
Fatliquors 555, 556
chlorinated 129
extraction of from leather 290
fixation of on leather 178
preparation of 223, 585
sperm oil substitute for 554
synthetic 318
Fat spew 66
FEAIRHELLER, S. H., Biography 85, 205
Federal Water Pollution Control Act Amendments 157
Feet, rate of growth of 551
Fiber structure of leather 96
Finishes 208
acrylic resin 277
adhesion of 523
characteristics imparted to leather by 277
characterization of 94
films for 44
foil 275
for leather 555
for leather and leather substitutes 126
nitrocellulose modified urethane 554
polymeric 277
polyurethane 230
shellac-based 551
FISHER, W. F., Biography 11
Fleshings, utilization of 195

Gas chromatography in the study of fat spew 66
Gelatin
hardening of 229
preparation of derivatives of 230
properties of 178
use of in preparation of leather substitutes 564
water binding by 274
Glue stock, dewatering and transport of 320
Graft polymerization 47, 182
GREIF, M., Biography 533
GREIFENEDER, JOHN, Biography 460
GRIGERA, J. R., Biography 363

GRIMLEY, SLATER, Biography 11
GRUBER, HELEN A., Biography 423

HAINES, B. M., Biography 121
HAPPICH, M. L., Biography 85
HAPPICH, W. F., Biography 85
HARRIS, E. H., JR., Biography 205
HAUCK, RAYMOND A., Biography 205
HEILAND, WOLFGANG K., Biography 423
Hides
analysis of pickled 396
chemical composition of 177
comparative properties of bull versus steer 508
curing of 317, 318
curing and pretannage of 228, 231
effect of antiseptics and antibiotics on microflora of 222
effect of chelating agents on tensile strength of 251
effect of cure on leather quality 210
evaluation of preservatives for 349
incidence of demodicosis on 5
lubricant for 230
machine-fleshed 381
marking of 126
mucopolysaccharide content of 124
pickled, demodicosis in 5
pickled, properties of 434
preparation at the source 208
preservation of 112, 179
preservation of by non-salt methods 208
preservation of by sodium sulfite 209
preservation of by solvent dehydration 212
tensile strength of 44
thermomechanical properties of 377
treatment of hairs of 233
unhairing of 232
utilization of waste products of 195
utilization of waste products of for amino acid production 211
Hydroxyproline
determination of in collagen 277
role in stabilizing collagen 278

Index to Volume LXIX 589
Industrial hygiene and the leather industry 125

International Union of Leather Technologists and Chemists Societies
XIVth Congress of 433
Report of Physical Testing Commission 316

JANSKY, KAREL, Biography 460
John Arthur Wilson Memorial Lecture, 1974 384
JONES, HOWARD W., Biography 85, 423

Keratin, cleavage of disulfide bonds of in lime liquors 46
KOMANOWSKY, MICHAEL, Biography 423

Lamb, influence of pretreatment on physical properties of 587
LEACH, MERRILL R., Obituary 14
Leather
absorption of water vapor and liquid water by 236
acrylic finishes for 277
adhesion of finishes to 523
aldehyde-tanned 222, 562
aluminum-chrome acrylic acid complex 560
bio-filters in production of 436
bonding of fats in 45
break-resistant 230
chamois, effect of titanium-zirconium tanning on 380
characteristics imparted by finishing to 277
characteristics of 94, 584
chrome, retanning of with chestnut extracts 340
clothing 48
coloring of 89
current challenges to the industry 318
cutting of for shoe uppers 377
dependence of quality of on curing method 209
determination of equivalent pore radius of 373
determination of strength of 211
distribution of syntans in chrome-tanned semifinished 378
drycleanable 559
drycleaning of 48, 588
drying characteristics of 318
dyeing and retanning of 308
effect of cure on quality of 210
effect of heat setting on chrome-tanned 435
effect of splitting and shaving on 213
embossed split 44
exotic, source of 504
extraction of fatliquors from 290

fatliquoring of 556
fiber structure of 96
films for finishes for 44
financial aspects of research on 19
finishes for 277, 555
finishing of 126, 208
finishing of with polyurethane film 127
fixation of fatliquors on 178
foil finishes for 275
for sports 550
future developments in 317
graft polymerization of 47, 182
history of in Germany 277
hygienic properties of 378
impregnation of with dispersion polymers 177
ironing of 177
lamination of with polyurethane film 127
lining of 553
lubricant for 212, 230
machinery for. *See* Apparatus.
manufacture of from stomach layers 504
manufacture of "roll goods" from splits 276
measurement of through-flow of liquids in production of 377
mechanism of oil tanning of 322
method of seamless connection of 227
neutralizing of 232
opportunities in 384
permanent and elastic stretch of 319
physical properties of 96, 306, 508, 587
plating of 94
preservation of by isothiazolones 280
printing of 561
process for preparation of shrunken 275
production of fire-resistant 557
production of shearling 551
protective clothing of 222
quality of 94, 124, 213
quality of from machine-fleshed hides 381
research on 19
romance of 384
semi-chrome 550
shellac-based finishes for 551
shrinkage of 550

shrinkage temperature of 379
side box 124
side, coloring of 89
side, manufacture of 28
standard substrate for fatliquoring and dyeing studies 44
soil-resistant 559
stratographic chromium distribution in 376
studies by electron microscopy of systems with polymers 381
surface treatment of 378
tanning of for rugs and mats 552
tanning of with aluminum salts 376
tanning of with zirconium-chromium 380
topographical differences in physical properties of 316
treatment of 553, 561
treatment of for better bonding to foil 562
urethane finishes for 554
utilization of waste products of 195
waterproofing of 378
water-resistant 47
water vapor permeability of 46
wear behavior of 319
with marbled design effect 308
Leather substitutes 128, 555
absorption of water by 236
base coat for 434
characterization of 94
finishes for 126
fire-resistant 225
for multi-color shoe sole blanks 129
from hydrophilic-poromeric foam 558
from polyurethane foam sheet 561
gelatin-bonded 564
manufacture of 129, 225, 228, 231, 553, 556, 557, 558, 559
method of manufacturer of microporous 127, 128, 557
method of seamless connection of 227
microporous 127, 561
permanent and elastic stretch of 319
polyurethane 554, 555
poromeric 558
suede-like 126, 128, 557
treatment of 553

water-repellant 126
water-vapor permeable 560
wear behavior of 319
with fiber fleece 559
LEVY, J. F., Biography 301
LINCOLN, GEORGE H., Obituary 13
Liming
effect of on keratin disulfide bonds 46
recovery of proteins in 50
LUDVIK, JAROMIR, Biography 460

Marbled design effect on leather 308
MCMULLEN, M. J., Biography 262
MELLON, EDWARD F., Biography 85, 424
MEO, DOMINIC, JR., Biography 424
MILLER, HAROLD Y., Obituary 13
MONEY, CATHERINE A., Biography 121

NAGHSKI, J., Biography 85, 533
NANDY, S. C., Biography 363
Needle penetrometer test 211
Notes for contributors 2

OKAMURA, H., Biography 363
Ontario Ministry of the Environment regulations 144
OTTERSTEDT, JAN-ERIK, Biography 581

PALM, W. E., Biography 533
Pelts
method of loosening 378
physical testing of 381
Peptides, interaction of detergents with 378
Pickling, effect of on chrome fixation 376
Pigskins, Improvement of quality of chrome-tanned 377
PIRICH, E. P., Biography 363
Polymers for leather impregnation 177
Polyurethane film for leather 127
Pore radius, determination of in leather 373
PRENTISS, W. C., Biography 301
Preservatives, evaluation of 349
Procollagenase 434

Proteins
deproteinizing solutions of 226
differential thermal analysis of 46
recovery of from lime-sulfide effluents 50

Rawstock, analysis of 462
Retannage, waterproofing 435
SACKS, B. R., Biography 175
SAGOSCHEN, J. A., Biography 364
Sausage casing 130
SELIGSBERGER, L., Biography 262
Shearlings, production of 551
Sheep scab 504
Sheepskins
graft polymerization of 182
quality of 504
temporary preservation of 318
SHIRAI, K., Biography 363
Shoemaking 208
Shoemaking materials, water vapor permeability of 46
Shoes
cutting of uppers for 377
for gulf 560
upper material for 44
water vapor transmission and wear comfort of 224
Shoe sole blanks 129
SIEGLER, MARCEL, Biography 11
SINNAMON, HOWARD I., Biography 425
SISKA, STANISLAV, Biography 460
SIVAPARVATHIM, M., Biography 364
Skins, reptile 224
Sludge, dewatering of 124
SMITH, W. L., Biography 175
STAMP, D. H., Biography 301
STUMPF, J. HERBERT, Obituary 427
Symposium
on leather finishing 208
on preparation of hides and skins at the source 208
on shoemaking 208
on tannery effluent regulations 133

Syntans
distribution in chrome-tanned semifinished leather 378
production of nonsulfonated 378

Synthetic leathers. *See* Leather substitutes.

TANCOUS, JEAN J., Biography 85
Tanneries
in Algeria 125
in Czechoslovakia 46, 47
in Europe 125
in Italy 94
in Russia 47
in Slovakia 124
Tannery effluent regulations 133
Tanning
mechanism of aluminum 376
oil, mechanism of 322
recycle of liquor from 209
with aldehydes 180, 222, 562
with aluminum-chrome acrylic acid complex 560
with chrome 504
with chrome, recycling of liquors in 435
with chrome-zirconium 505
with chromic chloride stearate complexes 178
with dialdehyde 179
with recycled chrome liquors 380
with zirconium-chromium 380
with zirconium 129, 180, 505
Tannins
determination of density of extracts of 377
from acacia 436
from dhawa 506, 550
influence of ultrasonation on extraction of 377
mechanism of fixation on hide fiber 319
use of mimosa extract containing 379
TAYLOR, M. M., Biography 85, 205
Tensile strenth
effect of chelating agents on 251
of hides 44
of skin under various humidities and temperatures 377
Trypsin, determination of 179

Unhairing 232
recovery of proteins in 50

VERA, V. S., Biography 364
Vinyl monomers, graft polymerization of 182
Waste water
activated sludge treatment of 378
bio-filters in treatment of 436
biological treatment of 94, 178
effect of chrome on biological treatment of 45
effect of consumerists and environmentalists on problem of 382
effect of legislation on 318
effect of lime-sulfide in on activated sludge 210
in Czechslovakian tanneries 125
legislation on 133, 144, 157
measurement of through-flow of 377
mechanism of coagulation treatment of 380
mixed with municipal wastes 178
purification of 178
recycling of 505
reduction of by recycle of tan liquor 209
treatment of 452
treatment of by activated carbon 382
treatment of by reverse osmosis 317
use of engineering methods in treatment of 438
Water, absorption of by leather and other sheet materials 236
Water pollution legislation 133
WHITE, EDWARD J., Obituary 264
WINDUS, W., Biography 533

Zinc chloride, use of in hide preservation 112
Zirconium tanning 129

ARTICLES ABSTRACTED FROM OTHER PUBLICATIONS

Abstracts Romanian Scientific and Technical Literature 178, 179, 180 222, 223
Am. Dyestuff Reporter 317, 382
Arch. Biochem. Biophys. 274
Biochemistry 272, 273
Biochim. Biophys. Acta 272, 273, 274
Biochim. Biophys. Res. Commun. 273, 278, 315
Clinical and Orthopaed. and Related Res. 224
Das Leder 44, 45, 224, 275, 276, 277, 318, 319, 320, 376
European J. Biochem. 274, 315
Hikaku Kagaku 585, 586, 587, 588
Hungarian Technical Abstracts 178
J. Mol. Biol. 224, 272
J. Soc. Dyers Colourists 317, 434
J. Soc. Leather Technologists and Chemists 316, 317, 318, 380, 381 382, 434, 435, 436, 504
Koza i obuca 379
Kozarstvi 46, 47, 94, 124, 125, 177, 178, 377
Kozh. Obuv. Prom. 376, 377, 378, 379, 380
Leather Sci. 504, 505, 506, 550, 551, 552
Leder und Häutemarkt. Gerbereiwissenschaft und Praxis 45, 275, 277, 318, 584
Molekul. Biol. 378
Nature 316, 317, 382, 434, 436
Przegl. Skorzany 377, 378, 379
Science 436
Vodni Hosp. 380